AFFILIATE

The REPEATER JOURNAL

CAROLINAS – VIRGINIA REPEATER ASSN., INC.
ORGANIZED 1971

February 1, 1976 Volume 5 No. 1

LET'S TAKE A LOOK AT OUR OPERATIONS

The CVRA will be five years old in March 1976. This organization that started as "The North Carolina FM Repeater Association", has grown into one of the larger repeater groups in the country. The repeater owners, working together as an Association, have successfully minimized repeater problems in our three state area. This is not to say that we don't have any problems, but they sure are insignificant compared to those being experienced in other areas of the country. But to continue this position we need to have all member repeaters committed to supporting the full operation of the Association. We need to get on the repeaters and ask people do they belong to the CVRA, encourage their support and participation. We must educate the users to repeater problems and repeater courtesies.... and this can only happen if they join the Association.

DIRECTORS AND VICE DIRECTORS.... Under the present by-laws, the CVRA is divided into nine Districts. Each District has a Director who serves as the Frequency Coordinator for his area. A Frequency Coordinating Committee Chairman, appointed by the President, serves as a liason to bring the nine Directors together. The Directors must be aware of all activity in their areas, and must communicate with the other Directors to prevent conflicts from arising. A Frequency Coordination Procedure was developed to be used in approaching the frequency coordination problem in a logical manner. Yet this procedure is not being followed as the bulk of the work is falling on the Chairman who is not in position to fully analyze all the requests and make recommendations in isolation. In fact we do not want this to be done out of a central point, it should be done in the field by people who are aware of the problems that are occuring and know the terrain so as to get a better feel of expected coverage areas. In short, we need to have interested and active Directors and Vice Directors. Member repeaters should insist that their Director communicate with them on a regular basis to keep up with everything that is going on and appreciate the problems.

Directors and Vice Directors are elected every other year by the repeaters who are members in each district. To be eligible for either of these two positions, a person must be an authorized Representative of a member repeater. Each member repeater should carefully consider who it selects as its Representatives in the Association. Most groups tend to let the Trustee or the fellow who is the Technical "Brains" behind the machine serve as the Reps. This may not be the best choice..... if you have someone who you think would be a good officer or director, be sure he is on your list as a Rep..... otherwise he cannot even be considered. Of course, it is also up to the Repeater Reps to insure that the Director know of any changes being made in a machine, or any problems that may be arising. How often do your Reps talk with your Director?

The
REPEATER JOURNAL

Volume 5 No 1

February 1, 1976

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"THE REPEATER JOURNAL" is published four times each year on the first day of February, May, August, and November, for members of the CVRA. Permission is granted for quoting from "THE JOURNAL" provided credit line is given. The CVRA will swap newsletters with other repeater councils on request. "THE REPEATER JOURNAL" has a circulation of 1000 copies, and is entered as Second Class Mail at the Post Office in Burlington, NC 27215.

LET'S TAKE A LOOK AT OUR OPERATIONS (cont'd from page 1)

We have discussed, on many occassions, about having meetings at Hamfests conducted by the Directors for their particular Districts. These could be small get-togethers to build better understanding between the Repeater Reps and the Directors. Any Director can do this at his own discretion, but no one has tried it as yet. We have a number of Hamfests coming up over the next few months..... any such meetings being planned?

TWO METER FREQUENCIES..... We are fast running out of "standard" repeater frequencies in the two meter band, particularly in the area along I-85 from the Greenville, SC area to Richmond, Va. and in the mountains in western North Carolina and Virginia. This means that we will have to start using the tertiary channels, or begin placing our repeaters closer together. In reality, both of these will probably come to pass. "Clear" channels for big repeaters may be a thing of the past within the next two years. This also means that users will have to respect this situation and not use antennas on large towers to access repeaters. The Florida Repeater Council, now listing over 100 repeaters on two meters in their state, has begun to appeal to base stations to restrict their field strength to approximately that of a mobile when using repeaters. When repeaters 100 miles apart share the same frequency, this becomes a necessity. The tendency has been to shorten the distance between repeaters before attempting to use the tertiary channels (channels set in between the ones we now use). This usually causes havoc with most existing transceivers as the receivers are not selective enough to prevent an adjacent repeater from causing a problem. This therefore calls for judicious placement of the "tertiary" repeaters so as to not cause interference problems with current operating machines.

REPEATER ACTIVITY ..... What is the activity level on the repeaters in your area? There are times when the local repeater is tied up for a few minutes, but most of the time it sits idle. This is usually true in areas that have more than two repeaters that provide good coverage. If you are thinking about putting up a repeater, look around first and be really convinced that the machine is needed. I constantly get letters from repeater groups stating that their activity level is hardly work keeping the repeater on the air, and tell me, "put an article in the next issue about our repeater, apparently no one knows it is there." You might be better off to help out a group that already has a repeater on, rather than putting up another one.

TWO METER SIMPLEX .... Yes simplex is booming in some areas. Long rag-chews are best conducted on simplex thereby leaving the machine for the shorter type of contact. By meeting on the repeater and moving to a simplex channel, many problems are solved.... less wear on the repeater, you don't bother the guys who are monitoring, and we make room for more activity. Sure 146.52 is in use around here, but what about 49, or 55? Look at the simplex channels available in 147, and 145.....

REPEATERS ON OTHER BANDS..... Two meters is by far the largest repeater band as far as activity is concerned. But there is more room on 220 mHz and 450 mHz. Gear is becoming available and consideration should be given for persons who want to have their own repeater to consider moving up the spectrum. Experimentation and private repeaters can flourish much better on 220 and 450 than on 2 meters. There are a few repeaters scatered around our area on these bands, but none have "taken off" as yet. Apparently the largest center of 220 activity still is around the Durham area and the Washington, DC area as far as the Carolinas and Virginia are concerned. There are some plans for wide area coverage machines on 450 and we will see these becoming active in the next six months. Give this some thought

NEWS BRIEFS

CVRA ADDRESSES..... There is sometimes confusion as to where someone should send material to the Association. All correspondence concerning frequency coordination should be sent to the appropriate Director, with a copy to the Chairman of the Frequency Coordinating Committee. The individual Directors are responsible for frequency coordination within their districts. The addresses of the Chairman and the Directors are included in each issue of "The Journal". Repeater Membership dues should be sent to Bill Page, WB4LWX; Associate Membership dues should be sent to Lindsay Cleveland, W4IZI.

W4BUZ RESIGNS..... Don Harris, W4BUZ, has resigned as Director of the Piedmont District , and as FCC Liason Officer. This follows after Don sold his interest in the Greensboro Repeater, WR4AOD, 16/76. Don has spent many hours working for the CVRA during the last five years in the capacity of its FCC Liason Officer and other official capacities. He was one of the founders of the original North Carolina FM Repeater Association which was the fore-runner of the CVRA. W4BUZ placed the original 16/76 repeater on the air in Greensboro in 1971, and published the first issue of "The Repeater Journal" in September 1971. Don's dedicated efforts will be missed by those of us who depend on someone carrying his own weight in an organization such as ours.

IT MAY PAY YOU TO BE A HAM.... ARRL General Council Booth sends along an interesting item from the FCC. An FCC Administrative Law Judge had to approve one of the two applications for a new FM broadcast station in Monticello, NY. Having determined that both applicants were financially qualified, the Judge stated that the only issue to be resolved was a comparative evaluation of the two applicants. After noting many similar qualifications of the two candidates, the Judge was quoted as follows: ".... it must be noted that Mr. Zitter(WA3YSD) started as an amateur radio operator at the age of 13. Amateurs, who must take and pass serious examinations involving a knowledge of FCC regulations and of technical standards before they are licensed can generally be depended on to comply religiously with FCC policy and rules. Therefore the fact that Mr. Zitter was an amateur operator at the early age of 13 was a significant factor in evaluating the quality of integration of ownership and management that can be expected under the Zitter proposal" The grant was made to Mr. Zitter. (tnx ARRL Directos' Letter)

K4MOB APPOINTED AS PIEDMONT DIRECTOR.... Wayne Williams, K4MOB, was recently appointed as Director of the Piedmont District to fill the unexpired term of Don Harris, W4BUZ. Normally, the Vice Director would move up to the Director slot, but John Huffman, W4IRE, requested that the President appoint someone else to the job as he had some other committments at this time. Wayne has been very active on VHF for the last several years, and is the Trustee of the Greensboro Repeater WR4ANP, 72/12. He has been to several of the Association Board Meetings during the past year, and will be an asset to the Association in his new assignment.

W4DGE APPOINTED AS FCC LIASON OFFICER .... Dan McMillin, W4DGE, has been appointed as FCC Liason Officer for the CVRA to fill the unexpired term of Don Harris, W4BUZ. Dan is very active on VHF in Greensboro and is employed by Bell Labs. He has had experience with working with the FCC and is looking forward to the new assignment with the CVRA. Welcome to the Staff Dan.

LET'S TAKE A LOOK AT OUR OPERATIONS (continued from page 3)

when you hear someone talking about another two meter repeater.

YOU AND YOUR INVOLVEMENT..... Whether you are a repeater owner, a repeater user, a club member whose club sponsors a repeater, or whether you are just thinking about getting on VHF, you should belong to the CVRA. The Association is dedicated to providing the efforts to coordinate repeater frequencies on all VHF bands for the three states of North Carolina, South Carolina, and Virginia. For this to be accomplished, we must all support this effort by belonging to the Association and trying to see that all users and owners belong. Current membership stands at over 700; this is only 10 people per member repeater. How many people use your repeater? Is your repeater a member of CVRA? Then why aren't all your users?

I want to see the amateurs in the Carolinas and Virginia coordinate our own frequencies and resolve our own problems. We do not need to get the FCC involved. Peer pressure will get more cooperation and results than all the regulations the Commission can write. I want the repeater that I use to be one that I can enjoy operating, I believe you want the same thing..... let's continue to work together so we, and all newcomers to our wonderful hobby, can enjoy operating the CVRA repeaters.

Bill Parris, K4GHR, Editor.

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(MORGANTON, NC) .... The Morganton Repeater has been in operation on 147.75/147.15 on an experimental basis since December 4, 1975, and is now ready to be installed on Burkemont Mountain in Burke County, also experimentally. The repeater license which was applied for 23 weeks ago as of this writing has not been received as yet. By the time this is in print, the machine should be operational on the mountain and all are invited to use it. It is an open machine, carrier access. The experimental call is WA4HWP/4. Welcome to the CVRA. (tnx K4AI)

(WINSTON-SALEM, NC) ..... The 87/27 machine is still progressing slowly. Construction continues and there is hope of getting the machine on by mid summer. License was applied for in November. The repeater will consist of a Simpson T-2 receiver and a GE Porta-mobile transmitter. It will feed into a homebrew amplifier running about 80 watts. (tnx W4IRE)

(WINSTON-SALEM, NC) ..... The 448.00/443.00 machine is still in the construction stage also. No definite date for start up has been set. The license application for this repeater was filed in May 1975..... no word on it as yet. (tnx W4IRE)

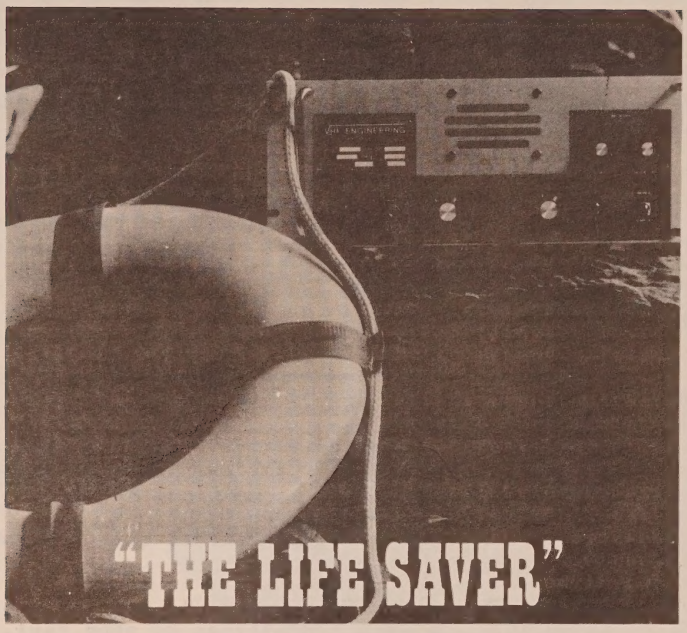
(SALISBURY, NC) .... WR4AAA, 13/73, now is equipped with emergency power and with a new autopatch. The machine is currently being plagued with line noise which the local REA company doesn't seem interested in finding. It was ammusing to note that when they did attempt to locate the source, the most sophisticated equipment that they had at their disposal was a battery powered AM Broadcast radio. The power company says they are now not able to find the noise..... so the club members are working on some equipment to try and locate the source. (tnx K4GHR, WB4SNA)

(SALISBURY, NC) ..... The Barber Junction Repeater Club, sponsor of WR4AAA/ WR4AJD, has been busily cleaning up the local repeater site and invites users to join the club and visit the repeater. New officers are: President, Tony McDowell, WB4BJY; Secretary, Jud Whatley, W4NZJ; and Treasurer, Clarence Beaver, K4SHU. The machine is now in service 24 hours per day.

(MOCKSVILLE, NC) .... WR4AJD/4, 52.78/52.525, will be operational during February. This is a split site machine with the receiver at the Salisbury repeater site and the transmitter at the QTH of WB4SNA in Advance. This will be a temporary arrangement to get the bugs out of the equipment and to develope users. (tnx WB4SNA)

(GREENSBORO, NC) .... WR4ANP, 72/12, continues to conduct code practice each Tuesday and Thursday evening at 8:30 PM, and the Guilford Co. Emergency Net continues to meet each Thursday at 9:00 PM. Future plans call for equiping the machine with a tone code so as to be conected directly to the Police Dispatcher. This split site machine is giving good mobile coverage within Guilford County with limited coverage in the neighboring counties of Rockingham, Forsyth, and Alamance. (tnx K4MOB)

(HIGH POINT, NC) .... WR4ADT, 40/00, is providing good mobile coverage to the counties of Guilford, Davidson, Randolph, and Forsyth. The machine is located at the QTH of K4AZA and is equipped with a secondary access frequency of 147.60. The autopatch may be accessed by the "star" (*), then dial 9 for outside line. (tnx K4AZA)



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SOME RECENT FCC CORRESPONDENCE

The following are extracts from letters to two amateurs in response to their requests for interpretations regarding specific points in the regulations. The letters were signed by John B. Johnston, Jr. for Charles A. Higginbotham, Chief, Safety and Special Radio Services Bureau.

"The provisions of Section 97.108(a)(4) require that an Amateur Repeater Station must discontinue operation within three minutes after failure of any control link. If the control link is entirely functional, there is no requirement that the repeater station interrupt its normal operation at three minute intervals". (Booth, 10/20/75)

"Waiver of Section 97.117 of the Commission's Rules to permit the use of a form of telemetry for the purpose of remotely monitoring the status of repeater control circuits or technical parameters is not required. Where intent of the encoded transmission is not to obscure the meaning but only to facilitate communications, the Commission does not consider the use of such codes to be prohibited.

Accordingly, the use of telemetry in conjunction with your regular amateur activities is permitted under the rules." (Rumbolt, 12/3/75)

LATE NEWS FROM "HR REPORT" dtd January 23, 1976.....

ARRL will be developing a sophisticated Novice recruiting and training program which could greatly increase the Amateur ranks over the next few years.

Watch QST for a new column "Ask the FCC" to answer questions most frequently asked FCC staffers.

Beware of anyone claiming to be VO1AC. Someone is running around in our area claiming to be VO1AC (he even has a license to show you). He took several amateurs in the Durham area for some dollars and has apparently had a field day down here. He was heard on 75 meters trying to sell a Ten Tec station. He is reported as driving a red Dodge pickup with camper on it. If you know of this station's activities, contact Ham Radio Magazine in Greenville, NH. (603)-878-1441

2 Meter Simplex users are apparently bothering OSCAR users in some parts of the country. Please avoid using 145.85-146.00.

A batch of repeater licenses is on the verge of being issued. The group, which includes applications dating back to last June, is expected to work through the computer and back into the mail by mid- February. If yours is of that vintage and still not in hand, be patient for another few weeks.

Stu Meyer, W2GHK, (formerly of Raleigh, NC) has joined E. F. Johnson as Manager of Government and Industry Relations. His Washington office will be concerned primarily with industrial two-way radio affairs.

REPORT FROM THE PIEDMONT DISTRICT (continued)

(STATESVILLE, NC) ..... WB4TBP has requsted a frequency recommendation for a potential repeater for the Statesville area. No definite plans have been made for a site or equipment.

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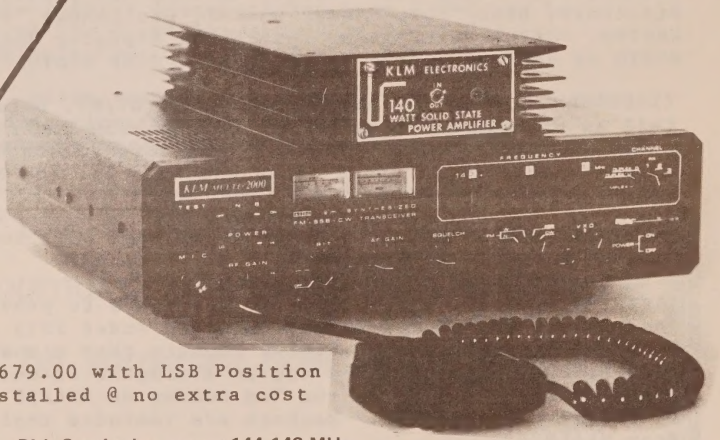

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Vice Dir: Eddie Sellers, W4NTQ 1004 N. Powell Whiteville, NC 28472

(JACKSONVILLE, NC) .... AF4AJG, 40/00, is now using the new Bicentenial call. This fine machine has now been in service for 4 months with only 4 days of downtime. Coverage for mobiles extends to over 45 miles in all directions from Jacksonville, and base stations within a 60 mile radius have no trouble getting into the machine. Use of the repeater is increasing daily. Currently there are about 30 local amateurs set up on the repeater. The sponsoring organization, the Onslow ARC, has 20 members supporting the machine and invites users outside Onslow County to help support the repeater by contributing $ 10 annually. Plans are being made for an autopatch installation, probably by the summer. Classes have started to assist people in getting a Technician or General license.(tnx WA4TLI)

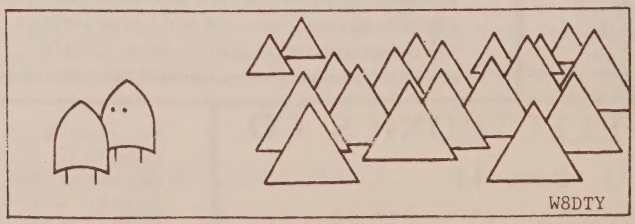
(WILMINGTON, NC) .... WR4AHL, 22/82, sponsored by the Wilmington VHF A Association. New Officers for the 1976 term are: President, Frank Haines, WA4GDS; Vice Pres, Phil Burton, WA4HEP; Sec/Treas, Duncan McFadyen, WA4KBP; Directors, Henry Montgomery, WA4YBI, Don Conway, W4EMD, and Ralph Foy, WB4TVD. Jerry Tate, K4GMP remains as Repeater Manager and Eddie Sellers, W4NTQ as Representative to the CVRA. (tnx W4NTQ)

(LAURINBURG, NC) .... AF4AIB (WR4AIB), 07/67, began using the Bicentennial Call as of midnight January 1. Good mobile coverage is reported along a 75 mile stretch of US 74 from Wadesboro to south of Lumberton..... a good repeater for those of us who head for the Beaches this summer. (tnx W4NTQ)

(ROANOKE RAPIDS, NC) .... A 96/36 repeater will soon be operating from Roanoke Rapids. No more details at this time.

(GRIFTON, NC) ... WR4ABP, 16/76, continues to provide excellent coverage to the eastern end of the state. ENC Inc ended 1975 with 88 members, up 21 from the previous year. WB4LWX reports that almost a complete back up repeater has been acquired and is available in emergencies. The ENC Board meets monthly at 9 PM on the 2nd Sunday on WR4ABP when there is no other scheduled get together. Members are reminded that 1976 dues are due. (tnx WB4LWX)

(SEVEN SPRINGS, NC) .... At a meeting held in December, a group of Wayne-Lenoir area amateurs voted to establish an organization to install an autopatch on WR4AEF, 25/85. Don Price, owner of the repeater, indicated that improvements will be made to the machine to significantly increase the coverage area. The planned autopatch will serve both Goldsboro and Kinston. (tnx WB4LWX)



"The old campsite is crowded this year!"

(tnx "Action Mini Mag")

REPORT FROM THE CENTRAL DISTRICT

Director: Bill Brydges, K4WHQ 904 East Main St. Shelby, NC 28150
Vice Dir: Ken Dresser, WB4NDB Rt 11 Box 179T Charlotte, NC 28213

(CHARLOTTE, NC) .... The Mecklenburg ARS, sponsor of WR4AEU, 34/94, will be holding their annual Metrolina Hamfest March 13 & 14 at the Carolina Trade Mart. This will be a 1½ day affair this year with starting time being noon on Saturday. Watch for your flyer to come in the mail with special discounts on motel rooms and meals. See more details in their ad in this issue.

(CHARLOTTE, NC) .... W4BFB, the club call of the Mecklenburg ARS, again set a record for scores in the ARRL VHF Contest held January 3 & 4, 1976. Over 21,000 points were scored. The contest group operated from Doughton Park, located on the Blue Ridge Parkway.

(CHARLOTTE, NC) ..... New Officers of the Mecklenburg ARS are: President, K4GHR; Vice Pres, WB4IZP; Secreatary, WA4UPA, Treasurer, K4MQG; and Board Members, WB4AMU, WB4ZOZ, and K4BWS.

(CHARLOTTE, NC) ..... A request for a frequency has been submitted by WB4KPF for a repeater to serve the Charlotte area. No recommendation has been made by the CVRA at this time.

(CHARLOTTE, NC) .... WR4ALO, 46/06, is now equiped with an autopatch and has increased its coverage area significantly in the past few months.

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FCC ACTIVITY ..... Bill Parris, K4GHR

The Amateur and Citizens Division continues its struggle with the tremendous workload, mainly due to the growth of Citizens Station license applications. This has delayed several major Amateur Radio dockets including the "restructuring" Docket 20282. Commission officials indicate that action on this particular docket is unlikely until this summer or later. All Amateur related rule making in the near future will mostly be confined to relatively uncomplicated "de-regulating" actions which have brought many favorable comments from the field.

The following regulatory changes have occurred in the last 60 days:

Crossbanding - Docket 20113 has been approved and effective Dec 15, 1975, unlimited crossband operation of repeaters in the authorized repeater subbands is legalized.

Effective December 1, the FCC revised its rules for submitting applications to license remotely controlled stations (including remotely controlled repeaters). From now on, the technical data describing the control system, control link block diagram, System Network Diagram, etc., all must go into the log of the remotely controlled station rather than be submitted with the license application. All that must accompany the application is a statement whether the station will be remotely controlled or not. Likewise, applications for control and/or auxiliary link stations need not be accompanied by their technical showings. Again, these items become log entries along with a copy of the System Network Diagram.

Another restriction which was lifted was the prohibition against portable or mobile operation of a remotely controlled station. However, during portable or mobile operation a positive control system is still required and the usual requirements for ID, logging and notification must still be observed. Note too that the prohibition against portable or mobile operation of auxiliary link stations has <u>not</u> been relaxed.

Effective December 24, the license renewal requirements for operating time and code proficiency were dropped. This again is logical since the requirements were essentially unenforceable.

Effective Jan 9, 1976, applicants for Extra Class License no longer need to have held a lower class license for a year..... no waiting now...

Work seems to be progressing in the following areas now:

The "instant upgrade" concept is still moving forward, current thinking is that all future Amateurs would start as Novices, where they would receive call signs, and from then on would receive on-the-spot upgrading whenever they passed FCC exams. Credit would be given for any part of an exam an applicant passed even if he didn't make it all the way, leaving him less to study on the next try. They also expect a system to be introduced soon whereby an applicant who successfully passes his upgrade exam may be able to walk out of the room with authority to go home and operate with the priviledges he just earned.

An Amateur's original license (not a photocopy) will have to be submitted with his application for renewal if Docket 20672 is passed. This is the result of FCC finding altered license copies arriving in their office.

FCC ACTIVITY (cont'd)

Docket 20679 proposes that volunteer examiners be required to submit photocopies of their licenses with request for examinations in order to help establish their qualifications. Look for February action on this one.

Another proposal about to be aired would delete the requirement to sign "Mobile 4" or "Portable 4" when operating away from the licensed premises. This should be a docket in February.

There will be a Docket which will give Extra Class License holders some type of call sign request..... probably letting them select the open call sign of their choice.

Beside these regulatory actions, there were a number of other areas of activity by the Commission..... legal problems may arise in some of the FCC enforcement areas, like the enforcement of obscenity regulations. Interestingly enough, though the FCC can go after a violator's amateur license for improper language, a really obnoxious case becomes a criminal action and goes to the FBI for investigation and prosecution under the obscenity statutes. The FBI is involved, for example, in obscenity problems on two west coast repeaters.

Repeater and Club Station Trustees should be aware that group organization plans and constitutions are being checked by FCC legal people to be sure funding of group Amateur stations is not in violation of Part 97.112. All new applications are checked as a matter of course, and files on old licenses are sometimes pulled for review on a random basis. Groups whose fund raising systems seem to ask for money for operation or use of the station are very likely to be cautioned.

Legal phone patches without phone company interconnecting devices may be a reality in the near future. The FCC is considering setting up standards by which equipment could be certified for direct phone line connection, and the Justice Department is pushing them to come out with a comprehensive plan. ARRL is looking into the possibility of having phone patches included in the equipment category for which no coupler would be required.

WA4UAM lost his Technician Class license by claiming on his renewal that he was a General. When his claim was challenged, a hearing was called to determine his fitness to hold an Amateur License and the presiding judge ruled his license not be renewed. He lives in Florida, by the way....

EDITOR'S NOTE: The above information was compiled from "HR REPORT", the weekly newsletter published by "Ham Radio" magazine, "Autocall", the monthly journal of the Foundation of Amateur Radio, and various Director's Letters of ARRL. My appreciation to these fine organizations and businesses that keep up on all of the latest happenings..... k4ghr

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SPECIAL NOTICE FROM THE MECKLENBURG ARS..... The 1976 Metrolina Hamfest which will be held March 13 and 14 (see ad on page 21)will be on the same weekend as the Regional NCAA Basketball playoffs. The basketball games will be played in the Charlotte Colesium, and will bring fans from all over the Carolinas and beyond. Please make your motel reservations now before the basketball crowd finds out which teams will be in the playoffs. Special rates available at the Days Inn on Woodlawn.

Director: Hugh Minton, K4FR, 44 Longwood Dr. Aiken, SC 29801
Vice Dir: Cliff Semken, K4OKD 436 Wallace Dr. Charleston, SC 29412

(PICKENS, SC) ..... WR4ADP, 40/00, continues to provide 24 hour service to the northwestern area of South Carolina. The Motorola equipment feeds 2 Ringos in phase at 700' HAAT atop Glassy Mtn. (tnx WB4YXY)

(CHARLESTON, SC) .... WR4AFX, 34/94, continues to work well with more and more users showing up. Some are Navy personnel stationed here but many are the old timers from 75 meters..... who are finding the clear frequencies of two meters really inviting. (tnx WB4GPS)

(CHARLESTON, SC) ..... The 16/76 repeater on the aircraft carrier "Yorktown" is coming along. Two sections of Rohn 25 have been mounted on top of the mast with a Phelps-Dodge 342-509 on top of that. The 450 antenna and associated feedline should be up in February. The ship is open to the public now. The repeater room is at the base of the mast. Tests with a HT-220 indicate that the 76 machine should have a little better coverage than the 94 machine although the height of the antennas are about the same. The low band station on the "Yorktown" is working out real well. The FCC has approved the call, WA4USN, however the license has not arrived yet. (tnx WB4GPS)

(CAMDEN, SC) .... Rumors of a group in Camden working on a repeater, anyone know any details on this?

(COLUMBIA, SC) .... Look for a special events station to be set up in Columbia during the week of May 10-18. State Certificates will be issued to persons contacting this station. They will be on 2 meters also. Chairman of the Committee is Carl, W4ZRH. (tnx WB4GPS)

(ORANGEBURG, SC) .... The Orangeburg ARC has ordered a VHF Engineering repeater kit and has filed for a repeater license. They hope to be on the air in late Spring 1976. The machine will be located on the Old Eutaw Hotel on Russell Street. Trustee of the license will be J. D. Black, WA4DVK. Since the repeater project was started, the number of two meter stations in Orangeburg has increased from 3 to about 15. Persons wanting to contribute to the Orangeburg Repeater, or those wanting to find out more information should contact the Orangeburg ARC, P. O. Box 329, Orangeburg, SC 29115. The club has requested the frequency of 147.69/09. (tnx K4IPG)

(WHITE HALL, SC) .... WR4AKO/4, 31/91, is really filling the gap that existed on I-95 and has been a big help to amateurs going to and from Florida. Coverage along I-95 extends for over 100 miles. The repeater is located at the WJWJ-TV transmitter site which is 10 miles south of Walterboro, SC, and 20 miles north of Beaufort. The antenna is 475' HAAT. The call being used is a temporary one and will be replaced when the regular license arrives.... application has been in since July 10, 1975.. Repeater Reps to the CVRA are K4KBI and WA4CSO. (tnx WB4PVL)

(COLUMBIA, SC) .... WR4ACD, 34/94 and 96/36. The Carolina Repeater Society is now operating two repeaters. The 96/36, the most recent addition, is located on an apartment building in downtown Columbia and is equipped with an autopatch, * access, # disconnect. Coverage is currently limited to Richland and Lexington Counties. Equipment is a VHF Engineering Repeater. Repeater Reps to the CVRA are K4AVU and K4DSK. (tnx K4AVU)

NORTH CAROLINA CLUB MEETING CALENDAR

ASHEVILLE
BUNCOMBE CO ARC 1ST THU 1930 BUNCOMBE COUNTY COURT HOUSE
ASHEVILLE
WNC VHF GROUP 2ND MON 1900 DINNER MTG @ GRACE REST ON MERRIMON STREET
CARY
CARY ARC 4TH THU 1930 WHITE PLAINS METHODIST CHURCH, WR4AOE(88)
CHARLOTTE
MECKLENBURG ARS LAST TUE 1930 RED CROSS BLDG ON PARK RD W4BFB/WR4AEU(94)
CHARLOTTE
CHARLOTTE RC 1ST THU 1900 CLUB BLDG @ WSOC-TV N TRYON ST W4CQ/WR4ALO(06)
CHARLOTTE
FRIDAY LUNCH GROUP FRI 1200 @ MR STEAK RESTAURANT ON INDEPENDENCE BLVD
DURHAM
DURHAM FM ASSN 2ND TUE 1800 K & W CAFETERIA AT UNIVERSITY MALL IN
CHAPEL HILL WR4AGC(82)
FAYETTEVILLE
CAPE FEAR ARS 3RD MON 1900 @ METHODIST COLLEGE, WR4ANN(91)
GREENSBORO
GREENSBORO RC FRI 1930 @ CLUB HOUSE NEAR FRIENDSHIP AIRPORT, W4GG
GREENSBORO
H.A.M.L.E.T. 3RD FRI 1830 BONANZA STEAK HOUSE I-40 & JAMESTOWN RD.
GREENSBORO
L.I.A.R.S. 2 & 4TH THU 1830 WESTERN SIZZLER STEAK ON WEST MARKET ST.
HIGH POINT
TRIAD ARC 2ND TUE 1930 1200 CHESTNUT DR WR4AFV(79)
JACKSONVILLE
ONSLOW ARC 2ND SAT 1000 HOWARD JOHNSONS RESTAURANT WR4AJG(00)
LEXINGTON
HEALING SPRINGS MTN VHF SOC LAST MON 1930 BURLINGTON HOUSE FURNITURE
CO PERSONNEL OFFICE W4PAR/WR4ABX(91)
RALEIGH
RALEIGH ARS 1ST WED 1930 CD RM NC STATE ADMIN BLDG W4DW/WR4ACF(64)
SALISBURY
ROWAN ARS 2 & 4TH MON 2000 SALISBURY CITY HALL MAIN ST W4EXU/WR4AAA(73)
WINSTON-SALEM
FORSYTH ARS 2ND FRI 1930 NAVAL RESERVE TRAINING CENTER

REPORT FROM THE SOUTHERN DISTRICT (continued)

(SUMTER, SC) .... Welcome to the CVRA WR4AOI, 10/70, sponsored by the Sumter Repeater Association. This machine is providing good mobile coverage to the counties of Sumter, Clarendon and Lee from its site on top of the Sumter City/County Office Building in downtown Sumter. The GE Progline machine feeds through a Northshore duplexer to a Hustler G6 antenna at 200' HAAT. 24 hour service is being provided. Reps to the CVRA are WA4LSM and K4ZU. (tnx WB4USY)

(GREENWOOD, SC) .... A group in Greenwood has asked for a recommended frequency for a repeater for the Greenwood area. No frequency pair has been worked out yet.

(MYRTLE BEACH, SC) .... The frequency of 01/61 has been recommended by the Association for this repeater which is scheduled to be located on a 16 story motel. One of the prime backers of this repeater has moved away from the area, so there has been no recent word on any progress being made on getting on the air.

VHF NET REGISTER (LOCAL TIMES INDICATED)

TWO METERS

ASHEVILLE, NC	16/76	WR4AKR	WESTERN NORTH CAROLINA TFC NET	TUE	2030
BURLINGTON, NC	07/67	WR4AKY	ALAMANCE COUNTY AREC NET	MWF	2100
CATAWBA CO, NC	146.82		CATAWBA COUNTY RACES NET	MON	1900
CHARLOTTE, NC	34/94	WR4AEU	MECKLENBURG ARS NET	MON	2030
FAYETTEVILLE, NC	31/91	WR4ANN	CAPE FEAR ARS NET	DAILY	1900
GREENSBORO, NC	72/12	WR4ANP	GUILFORD COUNTY EMERGENCY NET	THU	2100
GRIFTON, NC	16/76	WR4ABP	ENC EMERGENCY NET	THU	2000
HAMPTON, VA	34/94	WR4AFT	HAMPTON ROADS EMERGENCY NET	WED	2000
LEXINGTON, VA	01/61	WR4ABU	CENTRAL VIRGINIA TRAFFIC NET	DAILY	2000
LYNCHBURG, VA	34/94	WR4ADY	LYNCHBURG TWO METER NET	TUE	1900
NORFOLK, VA	145.025		TIDEWATER SSB NET (2 MTRS)	TUE	2100
NORFOLK, VA	145.80		HAMPTON ROADS EMERG. NET (AM)	MON	2000
RALEIGH, NC	04/64	WR4ACF	RARS NET	MTTHF	2000
RICHMOND, VA	28/88	WR4ACW	AMATEUR TRAFFIC & TROUBLE NET	MTWTH	2030
SALISBURY, NC	13/73	WR4AAA	CENTRAL NORTH CAROLINA TFC NET	DAILY	2200
WINSTON-SALEM, NC	04/64	WR4ACA	FORSYTH CO AREC/RACES NET	WED	2100

SIX METERS

ATLANTA, GA	50.110	INTERSTATE NET (SSB)	SUN	2100
CHARLOTTE, NC	50.110	DIXIE NET (SSB)	WED	2100
CHARLOTTE, NC	50.400	CHARLOTTE HORNET NET (AM)	SUN	2100
GLENDALE SPR, NC	50.120	NORTH CAROLINA 6 MTR NET (SSB)	THU	2100
LEXINGTON, NC	50.120	NORTH CAROLINA 6 MTR ASSN	SUN	0900
NORFOLK, VA	50.150	TIDEWATER SSB NET	TUE	2000
RICHMOND, VA	50.250	CENTRAL VIRGINIA NET (AM)	DAILY	1900

VIRGINIA CLUB MEETING CALENDAR

LYNCHBURG
  LYNCHBURG ARC 2ND TUE 2000 @ BEULAH BAPTIST CHURCH, K4HEX
NEWPORT NEWS
  SPARC 1 & 3RD WED 1930 @ VEPCO BLDG IN HAMPTON, WR4ALW(73)
NORFOLK
  HAMPTON ROADS RADIO ASSN MEETING TIMES ANNOUNCED BY WA4MMP, WR4ACN(79)
RICHMOND
  RICHMOND AMATEUR TELECOMMUNICATIONS SOC (RATS) 1 & 3RD FRI 1930 AT
  THE STONE HOUSE IN FORREST HILL PARK, WR4ACW(88)
VIRGINIA BEACH
  VIRGINIA BCH ARC 1ST TUE 1930 @ PLAZA FIRE STN, WR4AAC(97)

SOUTH CAROLINA CLUB MEETING CALENDAR

CHARLESTON
  HOLIDAY VHF SOC 2ND WED 1930 PINEHAVEN SHOPPING CTR MTG RM, WR4AFX(94)
COLUMBIA
  CAROLINA RPTR SOC 1ST MON 1930 PROVIDENCE PRES. CHURCH, WR4ACD(94)
GREER
  GREER ARC 1ST MON 1930 MTG LOCATION ANNOUNCED MONTHLY, WR4ABG(94)
ORANGEBURG
  ORANGEBURG ARC 1ST THU 1930 @ TENNELEC ON HWY 301 NORTH
SUMTER
  SUMTER RPTR ASSN 3RD MON 2000 CITY/COUNTY OFFICE BLDG CONF RM WR4AOI(70)

DISTRIBUTION OF TWO METER REPEATERS

2/1/76

	NORTH CAROLINA	SOUTH CAROLINA	VIRGINIA
01/61		GREENVILLE, MYRTLE BCH	LEXINGTON
04/64	ASHEVILLE, RALEIGH WINSTON-SALEM		
07/67	BURLINGTON, FOREST CITY LAURINBURG		BARREN SPRINGS
10/70	GREENVILLE(TN)	LANCASTER, SUMTER	DANVILLE,PTSMTH/NOFLK
13/73	SALISBURY	NO. AUGUSTA	HAMPTON, ROANOKE
16/76	GRIFTON, ASHEVILLE GREENSBORO	CHARLESTON	LYNCHBURG
19/79	HIGH PT., JOHNSON CTY(TN)	LAVONIA(GA)	CHESAPEAKE, FAIRFAX
22/82	ASHEVLE,CHARLOTTE,DURHAM WILMINGTON, ROARING GAP	GREENVILLE	WINCHESTER
25/85	HICKORY, REIDSVILLE SEVEN SPRINGS		
28/88	RALEIGH, SHELBY BRISTOL(TN)	COLUMBIA, SAVANNAH(GA)	CHARLOTTESVILLE, RICHMOND, ROANOKE
31/91	FAYETTEVILLE, LEXINGTON MURFREESBORO	WHITE HALL	TYSON'S CORNER
34/94	AURORA, CHARLOTTE, DURHAM BEULAVILLE, MANTEO	CHARLESTON, COLUMBIA GREENVILLE, AUGUSTA(GA)	HAMPTON, LYNCHBURG, ROANOKE, RICHMOND
37/97	MT. AIRY	ANDERSON, FLORENCE	ROANOKE(38/98), BULL RUN STAUNTON, VIRGINIA BEACH
40/00	HIGH POINT, JACKSONVILLE	PICKENS	SUFFOLK
43/03	SMITHFIELD	ROCK HILL	RICHMOND
46/06	CHARLOTTE, ELIZABETH CITY		
69/09	GREENVILLE	ORANGEBURG	GALAX
72/12	GREENSBORO		
75/15	DURHAM, MORGANTON		ALEXANDRIA
78/18	BURLINGTON, CHARLOTTE		
81/21	LAKE TOXAWAY, GREENSBORO LUMBERTON		
84/24	FRANKLIN		WOODBRIDGE, ALBERTA
87/27	WINSTON-SALEM, BENSON	CLEMSON	
90/30	CHARLOTTE (24/90)		
93/33	LENOIR, FAYETTEVILLE	AUGUSTA(GA)	NEW MARKET
96/36	ROANOKE RAPIDS	COLUMBIA	
99/39			

2/1/76

Virginia

ALBERTA	WR4	147.84	147.24	U
ALEXANDRIA	WR4	147.75	147.15	U
BARREN SPRINGS	WR4AFQ	146.07	146.67	
BULL RUN	WR4ADZ	146.37	146.97	T
CHARLOTTESVILLE	WR4ADV	146.28	146.88	
CHESAPKE/NORFLK	WR4ACN	146.19	146.79	CA
DANVILLE	WR4AHG	146.10	146.70	
FAIRFAX	WR4AAD	146.19	146.79	
GALAX	WR4AHR	147.69	147.09	C
HAMPTON	WR4ALW	146.13	146.73	
HAMPTON	WR4AFT	146.34	146.94	C T
LEXINGTON	WR4ABU	146.01	146.61	C
LYNCHBURG	WR4ADY	146.34	146.94	C
LYNCHBURG	WR4AEN	146.16	146.76	
NEW MARKET	WR4	147.93	147.33	P
PTSMTH/NORFOLK	WR4ANT	146.10	146.70	U
RICHMOND	WR4ADI	146.34	146.94	T
RICHMOND	WR4ACW	146.28	146.88	CAT
RICHMOND *	WR4ACW	146.43	147.03	C P
ROANOKE	WR4AMQ	146.13	146.73	C
ROANOKE	WR4AFE	146.28	146.88	C
ROANOKE	WR4AFY	146.38	146.98	
ROANOKE	WR4AHT	146.34	146.94	C
STAUNTON	WR4ACL	146.37	146.97	C
SUFFOLK	WR4AKS	146.40	147.00	CA
TYSON'S CORNER	WR4ABR	146.31	146.91	
VIRGINIA BEACH	WR4AAC	146.37	146.97	CA
WINCHESTER	WR4AGT	146.22	146.82	C
WOODBRIDGE	WR4AII	147.84	147.24	

LEXINGTON	WR4ABU	52.01	53.01	C P
NORFOLK	WR4	------	------	P

TYSON'S CORNER	WR4AEY	223.34	223.94	
WOODBRIDGE	WR4AIJ	223.22	224.82	

CHESAPKE/NORFLK	WR4ACN	449.95	444.95	C P
ROANOKE	WR4AHT	447.75	443.75	U

C CVRA MEMBER
A AUTOPATCH
T TONE ACCESS
* TEMPORARY CALL
* ALTERNATE FREQUENCY

U UNDER CONSTRUCTION
P PROPOSED
O OFF AIR TEMPORARILY

146 MHZ BAND

GENERAL

146.00 - 146.46 Repeater Inputs
146.49 - 146.58 Simplex
146.61 - 147.06 Repeater Outputs
147.09 - 147.39 Repeater Outputs
147.42 - 147.66 Simplex
147.69 - 147.99 Repeater Inputs

All channel spacing is 30 kHz

REPEATER CHANNELS (27)

Input	Output	Input	Output
146.01	146.61	147.69	147.09
146.04	146.64	147.72	147.12
146.07	146.67	147.75	147.15
146.10	146.70	147.78	147.18
146.13	146.73	147.81	147.21
146.16	146.76	147.84	147.24
146.19	146.79	147.87	147.27
146.22	146.82	147.90	147.30
146.25	146.85	147.93	147.33
146.28	146.88	147.96	147.36
146.31	146.91	147.99	147.39
146.34	146.94		
146.37	146.97		
146.40	147.00		
146.43	147.03		
146.46	147.06		

SIMPLEX CHANNELS (13)

146.49 DX	147.42	147.57
146.52 NCF	147.45	147.60
146.55	147.48	147.63
146.58	147.51	147.66
	147.54	

SIMPLEX CHANNELS IN 145 MHZ REGION

Here are 28 channels available for simplex activity which just about all rigs will cover. Avoid operating between 145.85 - 145.975 as this portion is being used for satellite Communications.

145.02	145.23	145.44	145.65
145.05	145.26	145.47	145.68
145.08	145.29	145.50	145.71
145.11	145.32	145.53	145.74
145.14	145.35	145.56	145.77
145.17	145.38	145.59	145.80
145.20	145.41	145.62	145.83

North Carolina

ASHEVILLE		WR4ALC	146.04	146.64	C
ASHEVILLE		WR4AKR	146.16	146.76	C
ASHEVILLE		WR4AGF	146.22	146.82	C
AURORA		WR4ABQ	146.34	146.94	C
BENSON	*	WR4AOE	147.87	147.27	
BEULAVILLE		WR4ADS	146.34	146.94	C
BURLINGTON		WR4AKY	146.07	146.67	C
BURLINGTON		WR4AIF	147.78	147.18	P
CHARLOTTE		WR4ABT	146.22	146.82	C O
CHARLOTTE		WR4AEU	146.34	146.94	CA
CHARLOTTE		WR4ALO	146.46	147.06	C
CHARLOTTE		WR4ABK	147.78	147.18	C
CHARLOTTE		WR4AJX	147.24	147.90	
DURHAM		WR4AJY	146.34	146.94	AT
DURHAM		WR4AJV	147.75	147.15	C
DURHAM		WR4AGC	146.22	146.82	CA
ELIZABETH CITY		WR4ADN	146.46	147.06	CAT
FAYETTEVILLE		WR4ANN	146.31	146.91	C
FOREST CITY		WR4AHA	146.07	146.67	C
FRANKLIN		WR4ALD	147.84	147.24	C U
GREENSBORO		WR4AOD	146.16	146.76	C
GREENSBORO		WR4ANP	147.72	147.12	C
GREENSBORO		WR4ANL	147.81	147.21	U
GREENVILLE		WR4AMB	147.69	147.09	CA
GRIFTON		WR4ABP	146.16	146.76	C
HICKORY		WR4ACM	146.25	146.85	
HIGH POINT		WR4AFV	146.19	146.79	C
HIGH POINT		WR4ADT	146.40	147.00	CA
JACKSONVILLE		WR4AJG	146.40	147.00	C
LAKE TOXAWAY		WR4AGH	147.81	147.21	C P
LAURINBURG		WR4AIB	146.07	146.67	C
LENOIR		WR4	147.93	147.33	C U
LEXINGTON		WR4ABX	146.31	146.91	CA
LUMBERTON		WR4	147.81	147.21	U
MANTEO		WR4AKB	146.34	146.94	C
MORGANTON	*	WA4HWP	147.75	147.15	C
MT. AIRY		WR4ACJ	146.37	146.97	C
MURFREESBORO		WR4AFB	146.31	146.91	CA
RALEIGH		WR4ACF	146.04	146.64	C
RALEIGH		WR4AOE	146.28	146.88	CA
REIDSVILLE		WR4ADE	146.25	146.85	C
ROANOKE RAPIDS		WR4	147.96	147.36	P
ROARING GAP		WR4AGS	146.22	146.82	C
SALISBURY		WR4AAA	146.13	146.73	CA
SEVEN SPRINGS		WR4AEF	146.25	146.85	C
SHELBY		WR4ABF	146.28	146.88	C
SMITHFIELD		WR4ALY	146.43	147.03	C U
WILMINGTON		WR4AHL	146.22	146.82	C
WINSTON-SALEM		WR4ACA	146.04	146.64	CA
WINSTON-SALEM		WR4	147.87	147.27	P

ASHEVILLE		WR4ALC	52.01	53.99	C U
DURHAM		WR4AGC	52.15	53.15	C
HICKORY		WR4	52.78	52.525	
SALISB/MOCKSVLE		WR4AJD	52.76	52.525	

ASHEVILLE		WR4AKR	222.34	223.94	C
DURHAM		WR4AGC	222.34	223.94	C
DURHAM		WR4	223.22	224.82	U
RALEIGH		WR4	223.34	224.94	U

ASHEVILLE		WR4AKR	449.90	444.90	C U
CHARLOTTE		WR4AEI	450 PRIVATE		
DURHAM		WR4AGC	449.10	444.10	CA
HIGH POINT		WR4ADT	447.90	442.90	C
MOYOCK		WR4			P
WINSTON-SALEM		WR4	448.00	443.00	U

South Carolina

ANDERSON		WR4AIO	146.37	146.97	C
CHARLESTON		WR4	146.16	146.76	U
CHARLESTON		WR4AFX	146.34	146.94	C T
CLEMSON		WR4	147.87	147.27	P
COLUMBIA		WR4ACD	147.96	147.36	A
COLUMBIA		WR4ACD	146.34	146.94	C T
COLUMBIA		WR4ABA	146.28	146.88	C
FLORENCE		WR4AGM	146.37	146.97	C
GREENVILLE		WR4ADG	146.01	146.61	C
GREENVILLE		WR4ABG	146.34	146.94	C T
GREENVILLE		WR4AHJ	146.22	146.82	CA
LANCASTER		WR4ABM	146.10	146.70	
MYRTLE BEACH		WR4	146.01	146.61	P
NORTH AUGUSTA		WR4ABB	146.13	146.73	C
ORANGEBURG		WR4	147.69	147.09	U
PICKENS		WR4ADP	146.40	147.00	C
ROCK HILL		WR4AJO	146.43	147.03	C
SUMTER		WR4AOI	146.10	146.70	C
WHITE HALL	*	WR4AKO	146.31	146.91	C

CHARLESTON		WR4AFX	449.10	444.10	C U

February 1, 1976

CAROLINAS-VIRGINIA REPEATER ASSOCIATION, INC.

Member Repeaters

PIEDMONT

DIRECTOR: K4MOB
VICE DIR: W4IRE

GREENSBORO, NC	WR4AOD	16/76
GREENSBORO, NC	WR4ANP	72/12
HIGH POINT, NC	WR4AFV	19/79
LENOIR, NC	WR4	93/33
LEXINGTON, NC	WR4ABX	31/91
MT AIRY, NC	WR4ACJ	37/97
REIDSVILLE, NC	WR4ADE	25/85
ROARING GAP, NC	WR4AGS	22/82
SALISBURY, NC	WR4AAA	13/73
WINSTON-SALEM, NC	WR4ACA	04/64
HIGH POINT, NC	WR4ADT	40/00
MORGANTON, NC	**WR4**	**75/15**

COASTAL

DIRECTOR: WA4UQC
VICE DIR: W4NTQ

AURORA, NC	WR4ABQ	34/94
BEULAVILLE, NC	WR4ADS	34/94
GREENVILLE, NC	WR4AMB	69/09
GRIFTON, NC	WR4ABP	16/76
JACKSONVILLE, NC	WR4AJG	40/00
LAURINBURG, NC	WR4AIB	07/67
SEVEN SPRINGS, NC	WR4AEF	25/85
WILMINGTON, NC	WR4AHL	22/82

WESTERN

DIRECTOR: WB4ROI
VICE DIR: WA4NUO

ASHEVILLE, NC	WR4AKR	16/76
ASHEVILLE, NC	WR4AGF	22/82
ASHEVILLE, NC	WR4ALC	04/64
ANDERSON, SC	WR4AID	37/97
GREENVILLE, SC	WR4ABG	34/94
GREENVILLE, SC	WR4ADG	01/61
GREENVILLE, SC	WR4AHJ	22/82
LAKE TOXAWAY, SC	WR4AGH	81/21
LAVONIA, GA	WR4AHB	19/79
PICKENS, SC	WR4ADP	40/00

EASTERN

DIRECTOR: WA4WTX
VICE DIR: K4ITL

BURLINGTON, NC	WR4AKY	07/67
DURHAM, NC	WR4AGC	22/82
DURHAM, NC	WR4AJV	75/15
DURHAM, NC	WR4AGC	220/52 MH
FAYETTEVILLE, NC	WR4ANN	31/91
RALEIGH, NC	WR4ACF	04/64
RALEIGH, NC	WR4AOE	28/88
SMITHFIELD, NC	WR4ALY	43/03
FAYETTEVILLE, NC	**WR4ADK**	**93/33**

CENTRAL

DIRECTOR: K4WHQ
VICE DIR: WB4NDB

CHARLOTTE, NC	WR4AEU	34/94
CHARLOTTE, NC	WR4ALO	46/06
CHARLOTTE, NC	WR4ABT	22/82
CHARLOTTE, NC	WR4ABK	76/18
FOREST CITY, NC	WR4AHA	07/67
ROCK HILL, SC	WR4AJO	43/03
SHELBY, NC	WR4ABF	28/88

SOUTHERN

DIRECTOR: K4FR
VICE DIR: K4OKD

CHARLESTON, SC		WR4AFX	34/94
COLUMBIA, SC		WR4ABA	28/88
COLUMBIA, SC		WR4ACD	34/94
FLORENCE, SC		WR4AGM	37/97
NORTH AUGUSTA, SC		WR4ABB	13/73
SUMTER, SC		WR4AOI	10/70
WHITE HALL, SC	*	WR4AKO	31/91

BAY

DIRECTOR: WA4MMP
VICE DIR: WA4JZX

CHESAPEAKE, VA	WR4ACN	19/79
ELIZABETH CITY, NC	WR4ADN	46/06
HAMPTON, VA	WR4AFT	34/94
MANTEO, NC	WR4AKB	34/94
MURFREESBORO, NC	WR4AFB	31/91
SUFFOLK, VA	WR4AKS	40/00
VIRGINIA BEACH, VA	WR4AAC	37/97

NORTHERN

DIRECTOR: K4ARO
VICE DIR: K4PQD

LEXINGTON, VA	WR4ABU	01/61
RICHMOND, VA	WR4ACW	28/88
RICHMOND, VA	WR4	450 MHZ
STAUNTON, VA	WR4ACL	37/97
WINCHESTER, VA	WR4AGT	22/82

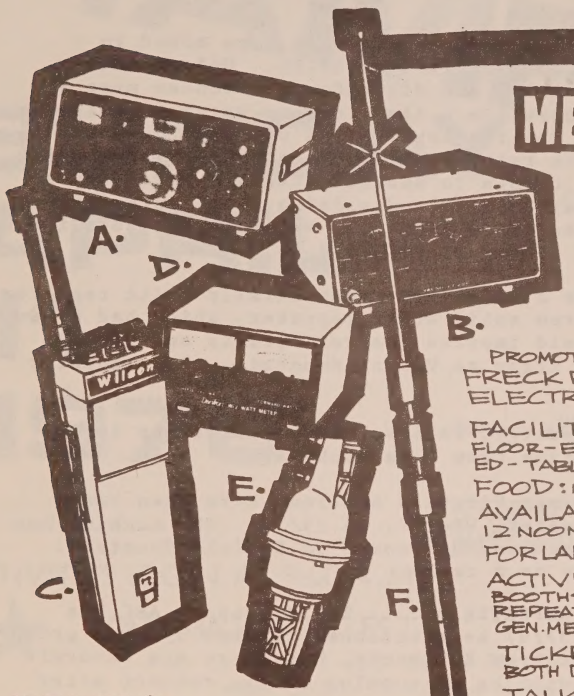
MOUNTAIN

DIRECTOR: WB4MOV
VICE DIR: W4PDL

GALAX, VA	WR4AHR	69/09
LYNCHBURG, VA	WR4ADY	34/94
ROANOKE, VA	WR4AFE	28/88
ROANOKE, VA	WR4AMQ	13/73
ROANOKE, VA	WR4AHT	34/94

W4BFB HAMFEST

Charlotte



METROLINA HAMFEST

MARCH 13, 1976 (SATURDAY)... 12 NOON — 6 PM

MARCH 14, 1976 (SUNDAY)... 8:30 AM — 6 PM

CAROLINA TRADE MART
531 S. COLLEGE ST.
CHARLOTTE, NC 28202

PROMOTIONAL CONSIDERATION BY:
FRECK RADIO & SUPPLY • EVERHART ELECTRONICS • WILSON ELECTRONICS

FACILITY: 40,000 SQ. FT. INDOORS - 3RD FLOOR - ELEVATORS - HEATED & AIR CONDITIONED - TABLES - CHAIRS - REST ROOMS

FOOD: HOMEMADE SANDWICHES, DRINKS, COFFEE AVAILABLE: MARCH 13 (SAT) BEFORE 12 NOON FOR SET-UP ONLY

FOR LADIES: BINGO (SUNDAY, ONLY)

ACTIVITIES: SWAP & SHOP - DEALERS' BOOTHS - EYEBALL QSO's GALORE - REPEATER ASSOCIATION MEETING (SUN-GEN. MEMBERSHIP) - EQUIPT. AUCTION 11AM & 3PM SUN.

TICKETS: $3.00 - TICKET GOOD FOR BOTH DRAWINGS (SAT. & SUN.)

TALK-IN: 146.34/94 - ON THE AIR AT 8AM, MARCH 13.

SPEND THE WEEKEND IN CHARLOTTE...

1. SPECIAL RATE AT THE DAYS INN ON WOODLAWN ROAD AT I-77. $13.88 PER COUPLE. CALL (704) 527-1620. (MAKE RESERVATION EARLY)
2. HOSPITALITY ROOM OPEN SAT. EVENING AT THE DAYS INN ON WOODLAWN ROAD.
3. 50% DISCOUNT ON SAT. EVENINGS DINNER AT E. SHONEY LOCATIONS IN CHARLOTTE ... SEE COUPON BELOW.

PRIZES:

(A & B) 1st Prize...UR CHOICE YAESU FT-101EX (or) FT-221
(E) 2nd Prize...HAM II ROTATOR
(F) 3rd Prize...HyGain 18AVT/WD
(D) 4th Prize...DENTRON W-2 WATT METER
(C) SATURDAY'S PRIZE..... WILSON "Walki-Talki"

MARCH 13, 1976 (SATURDAY) 12 NOON — 6 PM
MARCH 14, 1976 (SUNDAY) 8:30 AM — 6 PM

METROLINA HAMFEST

CAROLINA TRADE MART 531 S. COLLEGE ST. CHARLOTTE, NC 28202

NEWS FROM ALONG THE EASTERN TENNESSEE BORDER WA4DBG

The biggest news from this area is the move of WR4ADO, the Kingsport Repeater, from 16/76 to 146.145/146.745. Users of both the Kingsport and Mt. Pisgah repeaters are very happy to be rid of the very annoying interference that existed when both of these fine machines shared the same frequency.

The Kingsport Amateur Radio Club Repeater, WR4AGE, has been moved to Bays Mountain. This repeater operates on 146.22/146.82. Unfortunately there is a 22/82 repeater in Knoxville, and directional antennas must be used to avoid interference with Knoxville. Also, due to partial equipment failure, it has been necessary to run the repeater at one watt output level. After SET, the club will be returning the repeater to Standard for repair and update, and possibly a change to another standard frequency so that an omnidirectional antenna may be used and eliminate the interference problem with Knoxville. This repeater is usable to a lot of amateurs in the western end of North Carolina and southwest Virginia.

Greeneville, Tennessee, 10/70, has a brand new, commercially built repeater. They had been using an all- homebrew solid state repeater, which had given good service but the new unit should improve the reliability and prevent W4ANB from having to make so many trips to Viking Mountain. The repeater call is WR4AHP.

Bristol, Tennessee has another repeater, WR4AFZ, 28/88. Stations in southwest Virginia have good coverage from this machine.

Several North Carolina, and Southwest Virginia stations have been heard through the Johnson City, Tn, repeater, WR4AIP, on 19/79. The machine has excellent height from atop its perch on WQUT tower on Buffalo Mountain. Turn your beams this way, and give me a call.

LATE NEWS ON THE KINGSPORT 22/82 REPEATER..... The Kingsport ARC has written the CVRA requesting that 37/97 be sanctioned for use by that group. The Mt. Airy repeater is 125 miles from Kingsport, but there are several mountains in the path. The CVRA will be responding to the request after some investigative work is done.

REPORT FROM THE MOUNTAIN DISTRICT

Director: Hank Holcomb, WB4MOV 513 Atlanta Ave. Lynchburg, Va. 24502
Vice Dir: Al Dyson, W4PDL 1848 Skycoe Dr. Salem, Va. 24153

(GALAX, VA) .... WR4AHR, 69/09, operated by the Briarpatch Mountain ARC is now on the air 24 hours per day. Operating from an antenna height of 2760' HAAT and with 40 watts of output power, coverage has been extended significantly in the past several months. Stations from such towns as Winston-Salem, Kingsport, and Bristol frequent the machine. (tnx WA4SIW)

(LYNCHBURG, VA) .... WR4ADY, 34/94, may be considering making a frequency change due to the interference problems being experienced. More on this later.

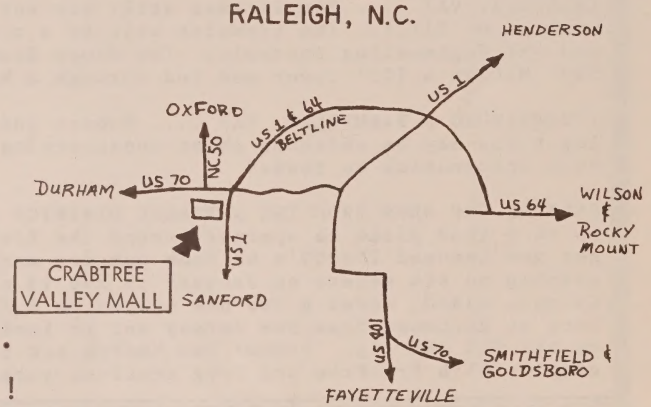
(LYNCHBURG, VA) .... New Officers of the Lynchburg ARC are: President: Paul Lilly; Vice Pres: Hap Patterson; Secretary: Bob Voss; Treasurer: Jim Yates; Ham Timer: Dennis Bowman; and Directors: Sparky Sherman, and Ken Gutherie.

THE RALEIGH AMATEUR RADIO SOCIETY'S

4th ANNUAL HAMFEST

SUNDAY APRIL 11 1976

CRABTREE VALLEY MALL
US 70 WEST
RALEIGH, N.C.



ACTIVITIES BEGIN AT 9:00 A.M.

★ FOUR MAJOR PRIZES ! !

(1) Choice of FT-101E OR IC-22A and DV-21 Combo. Vickers Electronics aided RARS in the purchase of this prize.

(2) Model 1402 SM 2.5W 2 Meter Handheld Tranceiver with 6 sets of crystals. This prize presented courtesy of RARS.

(3) Tri-Band Beam. This prize presented by RARS through assistance of Freck Radio.

(4) Ham-M II Rotator presented by Cornell-Dubilier through Millar Electronics.

MANY, MANY OTHER PRIZES

EXPANDED FLEA MARKET (Covered) ★ LADIES PROGRAM AND PRIZES

★ WALK TO NEARBY MOTELS AND RESTAURANTS ★ MEETINGS

STAY AT THE RAMADA INN, CRABTREE, ROUTE 70W AND THE BELTLINE. RESERVATIONS TELEPHONE 919/782-7525. TELL THEM YOU'LL BE THERE FOR THE RARS HAMFEST. PLAN TO JOIN US FROM 6 PM TILL MIDNIGHT ON SATURDAY, APRIL 10, AT OUR HOSPITALITY ROOM AT THE RAMADA INN CRABTREE.

TALK-IN SATURDAY AFTERNOON AND SUNDAY
WR4ACF (146.04/146.64)
WR4AOE (146.28/146.88)

FOR ADDITIONAL INFORMATION, DETAILS, OR RESERVATIONS CONTACT:
Jack Kenny, WB4MCU (Chairman), P. O. Box 17124, Raleigh, NC 27609

Director: Carter Cogle, K4ARO 1667 Varina Ave. Petersburg, Va. 23803
Vice Dir: Tom Gimbert, K4PQD Rt 1 Box 18 Rixeyville, Va. 22737

(LEXINGTON, VA) .... WR4ABU, 01/61, is reportedly going to move to 147.93/147.33 sometime before April 1, 1976. This is due to some interference problems being encountered to the north. (tnx WA4WTX)

(CHARLOTTESVILLE, VA) .... WR4ADV, 28/88, which has been off the air in recent months may be coming back on the air on a different frequency. K4ARO is coordinating a clearer frequency for them. (tnx K4ARO)

(RICHMOND, VA) .... WR4ADI, 34/94, is back up to full power and has good coverage area once more. (tnx K4ARO)

(ALBERTA, VA) .... The license still has not arrived for this machine which will be on 81/21. The repeater will be a combination of Progress Line strips and VHF Engineering Controls. The Ringo Ranger antenna will be at about 570' MSL on a 125' tower and fed through a home-brew duplexer. (tnx K4ARO)

(PETERSBURG & FARMVILLE, VA) .... Rumors indicate that groups in these two locations may be thinking about constructing repeaters..... anyone have more information on these?

GENERAL VHF NEWS FROM THE NORTHERN DISTRICT .... Two meter SSB continues to be a good place to operate around the Richmond area. Two fellows just got new Kenwood TS-700's so look out for more activity. There was a good opening on six meters on January 11 and 13 at which time Barry, WA4NNJ, and Carter, K4ARO, added a few new states on 6 FM. Alan, WA4ADX, has moved back to Richmond from New Jersey and is looking for someone to talk with on his 220 mHz rig. WA4NNJ and WA4PMG are trying to get set up on 446 mHz simplex with Pre-Prog and Prog stations respectively.

RENEWED FOR '76 ????

Repeater Members.... time to send 1976 dues to WB4LWX.....

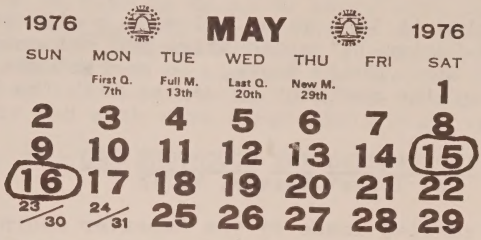
He say "Tribe waiting for your dues."

Renewals have come in very good so far reports Bill Page, WB4LWX. Be sure to keep your membership in CVRA..... We need you as a member !!!!!!!!!!!!!

ASSOCIATE MEMBERSHIP APPLICATION BLANK ON BACK OF THIS NEWSLETTER.....

Give the application blank to a friend, do him a favor and aquaint him with the CVRA.

MARK YOUR CALENDAR N O W!



ANNUAL

DURHAMFEST

FM CONVENTION AND FLEA MARKET

Bigger and better than last year
2 Big Days - Saturday and Sunday

MAY 15&16, 1976

Downtown Ramada Inn, Durham, North Carolina
FEATURING

Technical Seminars
Ladies Activities
Saturday Night Banquet
and
2 Day Covered Flea Market

MANY VALUABLE PRIZES
GRAND PRIZE - YOUR CHOICE

Atlas 210X
Complete station

ICOM
IC 21A/DV-21

DFMA members are not eligible for prizes.

Advanced Registration $2.00 - $3.00 at door - Children Free

For Reservations (Banquet and Accommodations)
WRITE: DURHAM F.M. ASSOCIATION, INC.
Post Office Box 8651
Durham, North Carolina 27707

Talk In Frequencies:
146.22/146.82

222.34/223.94

TEKNICLE TOPIX ..... Watson Gabriel, WB4EXW, Tech. Editor

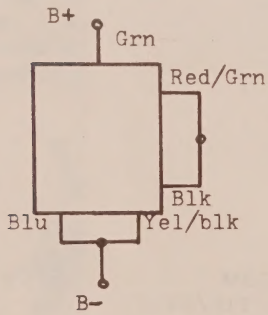
You fellows really blew it last issue. I made a mistake in the schematic for the "U-Design-It" attenuators and not one person brought it to my attention. Tch! Tch! Anyway, to correct the schematic, change the labeling of the resistor in series with the E_{in} signal source from R2 to R_S.

INTERFACING THE TOUCHTONE PAD
by Robert Weaver, W4TYE

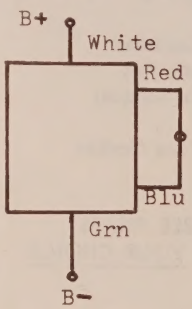
As was stated in an earlier issue of the Repeater Journal, the use of a Touchtone pad on an autopatch equipped repeater can increase the enjoyment of 2 meter FM operation as well as facilitate routine and emergency communication from a mobile installation. For many, however, the Touchtone pad and its interface to one's equipment can be a source of deep frustration. The purpose of this article will be to share some simple ways this can be done if one has a pad which is in operating condition, that is, one which has not been subjected to the screwdriver treatment on the frequency determining toroids. If you can, be sure the pad you purchase is in good operating condition.

We will begin by showing some basic block diagrams of the common Touchtone pads currently in use:

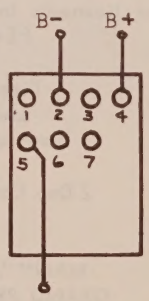
Western Elec. Standard Large Pad



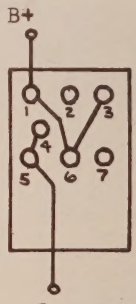
Automatic Elec. Standard Large Pad



Trimline



Slimline

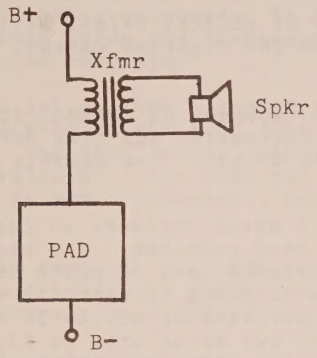


Each of these pads can operate on a rather wide range of voltages. For practical purposes, however, the most common voltages in use are either 9 or 12 volts. These are usually available from a filtered source within the rig, or through a battery mounted within the pad enclosure. Be sure if you use the 12 volts supplied by the car that adequate filtering is incorporated or the tones may be distorted by alternator whine.

To interface these pads to your equipment there are several ways one may go. These range from the complex switching circuits which may be used to key the transmitter, hold it down for a given period of time (usually long enough to complete the number punched into the pad) and then release it, to the simple acoustically coupled pad which allows

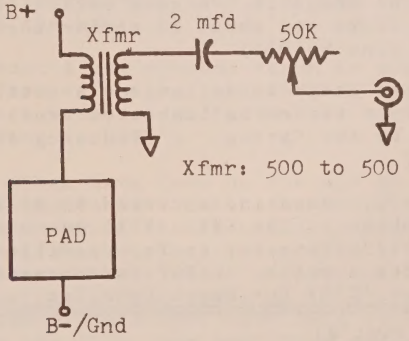
the operator to hold the pad before his microphone as he dials. Each method has merits and disadvantages which go beyond the scope of this article. What we do hope to do is to share with you a rather simple interface which has been used by the author on several makes of equipment. These will include a method of acoustically coupling, direct coupling, and a combination of the two for those who like to hear what is being coupled directly into the transmitter or would like to use their pad with some other ham's rig.

1. Acoustically Coupled

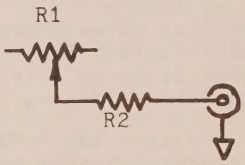


Xfmr: 500 ohm to either 8 or 3.2 ohm depending upon spkr impedance

2. Direct Coupled

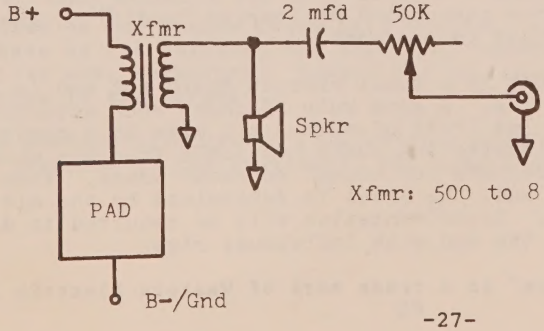


Xfmr: 500 to 500 ohms



For high impedance circuits it may be necessary to change R1 to a lower value (5K) and insert R2 (100K to 1 Meg)

3. Combination



Xfmr: 500 to 8 or 3.2 ohms

REPORT FROM THE EASTERN DISTRICT

Director: Charles Durst, WA4WTX 4407 Sunny Ct. Durham, NC 27705
Vice Dir: Danny Hampton, K4ITL 550 Granite St. Raleigh, NC 27608

(BURLINGTON, NC) ..... WR4AKY, 07/67, sponsored by the Alamance Repeater Association, Inc, is now operating from Cane Mtn, about 7 miles south of Burlington. Antenna height at the new location is 430'HAAT. The machine is on the air 24 hours daily. This is the same machine which was previously operated under the call of WR4AIF. Reps to the CVRA are W4VGZ and WB4ZIN. (tnx WB4ZIN)

(RALEIGH, NC) .... The Raleigh ARS, sponsor of WR4ACF, 04/64, will be holding their annual Hamfest on April 11, at the Crabtree Center. See details in their ad in this issue.

(DURHAM, NC) .... The Durham FM Association, sponsor of WR4AGC, 22/82, will be holding their annual Durhamfest FM Convention and Flea Market on May 15 & 16 at the downtown Ramada Inn in Durham. See details in their ad in this issue.

(DURHAM, NC) .... WB4DBB plans to have his 6 meter repeater on the air in February. Frequencies of 52.15/53.15 have been selected. The repeater has been completed and checked out. The receiver is a GE MASTR Executive with noise blanker and the transmitter is a GE MASTR II with 100 watts output. The sites have not been finalized but will be within 20 miles of Durham and will be 5 to 10 miles apart. The two sites will be linked on 450 mHz. The machine is completely solid state and will be equipped with an emergency power supply. (tnx WB4DBB)

(DURHAM, NC) .... WR4AGC, 222.34/223.94, has been in continuous service since September 1974, with only two days of downtime. A good mobile coverage of 35-50 miles is being obtained. There are about 16 active users of this machine. How about joining us??? (tnx WB4DBB)

(LUMBERTON, NC) .... The Lumber River Radio Relay League is getting ready to begin construction of a repeater to serve the Lumberton area. Intentions are to have the machine on the air by the Spring. A frequency of 81/21 has been recommended. (tnx WB4DVN)

(FAYETTEVILLE, NC) .... WR4ADK, 93/33, owned and operated by Bill Finch, W4EHF, is one of the recent new members of the CVRA. Bill was one of the prime instigators of the original 31/91 repeater in Fayetteville and has been active in CVRA affairs for quite a while. W4EHF is currently serving as the Section Emergency Coordinator (SEC) for North Carolina.

INTERFACING THE TOUCHTONE PAD (cont'd)

A footnote to these diagrams when used with the Trimline pad: The transformer is coupled from connection #5 (marked "audio") to ground. The remainder of the circuit is the same.

The variable resistor (50K) is a small circuit board pot and is used to vary the level to the rig. A good rule of thumb when adjusting the level is to start with a low level of output and move to a position which gives about three-fourths the audio available from the microphone. This should be adequate for normal repeater usage. When using the acoustically coupled pad, the level is determined by the distance away from the microphone. Experimentation will be required to determine how close to use the pad with individual rigs.

Editor's note: "Touchtone" is a trade mark of Western Electric Co.

ARRL SPONSORED NATIONAL FREQUENCY COORDINATION PLAN

In a letter dated October 29, 1975, ARRL began an investigative study to determine if there is a need for an ARRL sponsored national frequency coordination plan for VHF repeater operation. As later noted by ARRL, this is not to infer that the regional repeater councils are not doing a good job, but there may be need to get organized on a national basis. Here are several excerpts from their initial letter.

"We have been informed by the FCC that they have now issued nearly 2200 repeater calls with about 500 more in process and approximately 50 applications per month still being received. It is obvious that the frequency crunch is going to get much worse and frequency coordinators will need as much help, and authority, as possible."

Further in the letter they indicate that the concept would have the "full support and backing of the FCC", which would be good ---- but what is meant by "backing"? The ARRL letter emphasizes the need for authority by the Frequency Coordinator. The CVRA has recognized that as a position that it wished it had in some occassions, but didn't feel like it would ever be a reality.

As you can well imagine, the ARRL received a lot of mail on this subject. Apparently, most responses from Repeater Councils such as ourselves favored the idea and concept as proposed, although there were many questions asked.

ARRL's initial letter indicated that the Frequency Coordinator would be appointed by the SCM. In CVRA's response, Ed Alderman, WA4PEN, pointed out that we would still want the Regional Repeater Councils responsible for the Frequency Coordinating effort and any appointee should be approved by them. Later correspondence from ARRL indicates that all repeater organizations asked for the same.

One repeater council has already begun to ask its member repeaters what their thoughts are on the matter. Now it appears that the League will be preparing another proposal on the matter and give it wider distribution, probably appearing in QST.

Most repeaters which have come on the air in the last two years within the Carolinas and Virginia have asked for a frequency recommendation from the CVRA, and ended up using the recommended channel. Difficulty has arisen more often from groups who start out with a "local" repeater and then later find out that they want to cover a wider area..... then changes are made without coordination. This tends to be a problem area with which we have not been able to cope. There have been some repeaters placed on the air without even contacting the CVRA, and most have ended up causing some type of conflict.

With frequencies on two meters becoming a premium, and the potential of a VHF only license on the horizon, the Frequency Coordinating effort will have to be given some authority. Maybe this is the step that will provide the missing link in the effort.

Comments from member repeaters on this subject will be appreciated. Address your comments to the President, FCC Liason Officer and your District Director.

HIGHLIGHTS OF THE CVRA BOARD MEETING, DECEMBER 7, 1975

The Board of Directors met at the General Telephone Office Building in Durham at 1400 on Dec. 7, 1975. Thirteen (13) members were in attendance.

The following Officers were elected for the 1976-78 term:

President; Ed Alderman, WA4PEN, Raleigh, NC
Vice Pres: Calvin Dempsey, WA4UQC, Tarboro, NC
Secretary: Carter Cogle, K4ARO, Petersburg, Va.
Treasurer: Al Ross, K4CAW, Greensboro, NC

Repeater Membership Chairman, Bill Page, WB4LWX, reported that the CVRA now has 64 member repeaters.

Associate Membership Chairman, Lindsay Cleveland, W4IZI, reported that we now have over 700 members on roll.

Charles Durst, WA4WTX, Director of the Eastern District reported that there have been some interference problems on 07/67 since Burlington moved their repeater to a new location. Attempts will be made to remedy this problem.

Carter Cogle, K4ARO, Director of the Northern District reported that the Charlottesville repeater now on 28/88 may be interested in shifting frequency to alleviate the problems between Richmond and Charlottesville.

Charles Durst, WA4WTX, Chairman of the Frequency Coordinating Committee, reported that the Kingsport repeater had moved to 146.145/745 and the problem between Kingsport and Mt. Pisgah has hopefully been resolved. This conflict built up a lot of hard feelings among amateurs in the western area of North Carolina and Eastern Tennessee, and it resulted in the CVRA spending much time and money in an effort to assist in getting a solution to the problem.

Treasurer, Al Ross, K4CAW, gave the following report:

Money on Hand Jan 1975		$ 531.17
Total Income for 1975		1697.37
	Total	$2228.54
Expenses for 1975		1614.86
Balance on Hand		$ 613.68

A budget will be prepared by the Financial Committee for presentation to the Board at its next meeting.

WA4PEN stated that K4IAR, Chairman of the Technical Committee is developing a single tone decoder kit which will be made available to members. More on this will appear in a future issue of the Journal.

WA4PEN briefly reviewed the ARRL proposal for appointment of ARRL VHF Frequency Coordinators. The CVRA filed comments with ARRL generally supporting the position, but emphasising the importance of close liason with the existing Regional and State Repeater Councils.

HIGHLIGHTS OF THE CVRA BOARD MEETING (continued)

K4GHR presented cost estimates on a previosly proposed CVRA decal for distribution and sale to members. Action on this was delayed until after the 1976 Budget had been prepared.

The autopatch standards question was discussed and the concensus of opinion was that CVRA does not want to establish standards at this time and believes this is a matter which can be handled better at the local repeater level.

There was discussion concerning "inactive" members of the Board of Directors. WA4PEN will be in touch with these Board members within the next month.

WA4PEN suggested that each club in the states of NC, SC, and Va, request the Director or Vice Director of their District to come and make a presentation on the CVRA and its purpose.

The importance of membership was also discussed, with WA4PEN indicating that we have the potential to triple membership in 1976 if the proper effort is expended. It was noted that face-to-face contact is the best technique to improve membership.

The next regularly scheduled Board Meeting will be held on Sunday, Feb 1, 1976, at 1500 EST on 3895 KHz LSB.

(The above highlights were taken from minutes of the meeting which were mailed to all Board Members by the Secretary, Carter Cogle, K4ARO)

CVRA REPEATER MEMBERSHIP REPORT..... Bill Page, WB4LWX

CVRA closed out 1975 with a total of 65 Repeater members in the three state area. On December 31, a letter went out to all Repeater Representatives pointing out that the $ 6.00 Repeater Membership dues for 1976 were now due. An update information form for each repeater which will provide material from which our annual Directory issue of "The Repeater Journal" is prepared was also enclosed.

At the time of this writing, January 14, 17 repeaters have sent in their renewal checks and update forms. An additional 4 repeaters which were not members in 1975 have joined for 1976 and forwarded their dues and repeater information forms to Bill Page, WB4LWX, Repeater Membership Chairman, P. O. Box 871, Kinston, NC 28501.

Repeater Reps who have not yet done so are urged to complete the repeater info sheet and return this to WB4LWX along with a check for $6.00 for 1976 dues. We are working toward an 80 repeater membership goal this year and Bill will appreciate being advised of any new groups so he can invite them to join us.

New repeaters or groups which were not members of CVRA last year but have joined for 1976 include: WR4AHJ Greenville, SC on 22/82; WR4AHB Lavonia, Ga on 19/79; WR4ADT High Point, NC on 40/00 who was a former member in 1974; and WR4AKY Burlington, NC which is using the old WR4AIF 07/67 pair but now at a new site.

A warm welcome to the new members and thanks for the renewals.

Director: WA4MMP, Bill Shaw 2216 Dunbarton Drive Chesapeake, Va. 23325
Vice Dir: WA4JZX, Joe Stevens 704 W. Main St. Elizabeth City, NC 27909

(PORTSMOUTH, VA) ..... Tom Lussen, WA4ILH, has ceased work on his 25/85 repeater thus relinguishing this pair for other assignment in the Bay District. Tom has turned over his site, the 400 foot ex WYAH Channel 27 TV tower on the Portsmouth waterfront (across the river from downtown Norfolk), to Bill Edlestein, WB4OSQ, who will install WR4ANT, 146.10/146.70, at this location. ANT will be an open carrier access machine duplexed to a station master type antenna at the full 400 foot level. ERP will be adjusted to "balance" the repeater for a 10 watt mobile. 30 to 50 mile mobile coverage is anticipated. Operation is expected to start in February 1976.

(HAMPTON, VA) .... WR4ALW is now in operation on 13/73, but is still located at WB8IIM/4's QTH near Patrick-Henry International Airport. Reliable mobile coverage is available throughout Hampton and Newport News. Base stations may access the machine from Norfolk and Williamsburg. The move to high atop the Chamberlin Hotel is planned for March. Once at the Hotel it should provide good mobile coverage from Williamsburg to Virginia Beach.

(CHESAPEAKE/NORFOLK, VA) .... WR4ACN, 19/79, is still awaiting its emergency power capability. The final bugs are being worked out of the control logic to permit switch-over to what is essentially a "mini-repeater" if the commercial power mains are lost. It is hoped this feature will be available by March. The ACN gang is also proposing a 450 repeater to cover the Tidewater area. For planning purposes 449.95/444.95 has been selected.

(VIRGINIA BEACH, VA) ... Hey gang!!!!! Don't forget WR4AAC, 37/97, the Virginia Beach repeater, run by the Virginia Beach ARC out on Rosemont Road (about half way between downtown Norfolk and the Virginia Beach Ocean front off the Virginia Beach Expressway). The machine is fully "open", has an autopatch, and is on the full 24 hours. (quiet hours requested between 2300-0600). It provides beautiful coverage throughout the Tidewater. Your activity on AAC is always welcome.

(SUFFOLK, VA) .... WR4AKS, 40/00, is now operating with an autopatch. For further details contact Lloyd Gattlin, WA4HMT, 804-539-2626.

(NORFOLK, VA) .... The Tidewater Amateur Radio Club, TARC, is proceeding with their plans for a six meter repeater to be located at Fort Norfolk. Antenna height will be a maximum of 275 ft (rather than the 400' previously reported). The machine is expected to run about 30 watts out to a split antenna system. Output frequency will probably be 52.525,(input yet undetermined) until local activity increases, and then move to a standard band plan pair. Anyone wishing further details on this proposed repeater may contact TARC President, Bill Conner, at (804) 460-1215.

(HAMPTON, VA) ... Tried 34/94 with no luck lately? Don't forget that WR4AFT may be on tone access. This feature is implemented when DX signals start to appear on 34 to prevent spurious keying of the machine. Don't be upset, the repeater is "open" and may be activated by a brief 1477 Hz tone. This can be either "whistled up" or is available from any button on the right-hand side of your TT pad. Once activated by tone, the machine may be kept on by carrier access until the tail is dropped. Once the tail is dropped, tone must again be used to reinitiate the cycle. While on 24 hours per day, quiet hours are appreciated between 2300 and 0600.

REPORT FROM THE WESTERN DISTRICT

Director:	Henry Roberts, WB4ROI	131 Wilshire Dr.	Greenville, SC 29609
Vice Dir:	Ralph Roberts, WA4NUO	Rt 1 Box 284	Alexander, NC 28701

(GREENVILLE, SC) .... Welcome to the CVRA WR4AHJ, 22/82. Sponsored by the Foothills Amateur Repeater Association, this machine provides good mobile coverage to the counties of Greenville, Greenwood, Anderson, and Oconee. The repeater is located near the top of Paris Mountain on the eastern end which places its antenna at around 400' HAAT. The Motorola transmitter and receiver are connected through a Phelps-Dodge duplexer to a Super Stationmaster antenna with an ERP of 150 watts. An autopatch is available to members on a 24 hour basis. Reps to the CVRA are W4AZT and K4JBS. (tnx W4AZT)

(LAVONIA, GA) .... WR4AHB, 19/79, becomes the first Georgia station to join the CVRA. The machine provides good coverage into many South Carolina counties along the SC/Ga border. The Motorola equipment feeds a combination of beams and dipoles at 220' HAAT, with 50 watts. The repeater is owned and operated by Ray Crawford, W4VRO. It is temporarly out of service but will be back on the air in about 2 months. Reps to the CVRA are W4VRO and K4HQI. (tnx W4VRO)

(ASHEVILLE, NC) ... FCC Exams will be given in Asheville at the Asheville/ Biltmore Technical Institute on March 16. Contact W4AFM for more details. This exam is administered by the Atlanta office of the FCC.

(CLEMSON, SC) .... A group from Clemson, SC is considering a repeater to be located on Sasafrass Mtn. Tentative frequency recommendation will be 87/27.

NEWS FROM THE BAY DISTRICT (continued)

(MOYOCK, NC) ... A 450 repeater is in the developmental stage at W4YHK's QTH. John is currently prototyping equipment and looking for a site. As plans become definite, a frequency pair will be selected.

(NORFOLK, VA) .... Tidewater Radio Convention, Inc has moved the location and dates of what was previously announced as the Virginia Beach Hamfest from July 24-25 at the Virginia Beach Dome to the weekend of July 31-Aug 1, at the Norfolk SCOPE Cultural and Convention Center. ARRL Roanoke Division Director, Phil Wicker, W4ACY, has approved TRCI's application to hold the 1976 Roanoke Division Convention in conjunction with the Hamfest and the event is now known as the "1976 ARRL ROANOKE DIVISION CONVENTION AND TIDEWATER HAMFEST". The two day event will use the facilities of SCOPE's entire exhibition hall, Holiday Inn SCOPE and Norfolk's new waterfront Omni-International Hotel. This will provide a total indoor and airconditioned 200 car tailgate flea market area, 16,000 sq ft of formal exhibitors' area and numerous large meeting rooms for the various forums and convention agenda items. 800 hotel rooms are being held for advance registration at Holiday Inn SCOPE and the Omni whichmay be reserved through the Holidex system by calling 800-238-5400 toll free. Be sure to mention the event when making your reservations to obtain the special convention reduced rates. Further details will appear in the various Ham magazines in the Spring. Tickets will be $ 2.50 in advance (available after April 15) and $3.50 at the door. For further details contact TRCI at P. O. Box 9371, Norfolk, Va. 23505.

FLORIDA REPEATER COUNCIL REPEATER DIRECTORY

Belle Glade	WR4	37 - 97	A
Boca Raton	WR4ACV	22 - 82	A
Bradenton	WR4ALZ	22 - 83	
Bunnell/Palatka	WR4	84 - 24	P
Callahan/Fern Bch	WR4ALA	01 - 61	
Callahan	WR4	99 - 39	E
Clermont	WR4	295-895	C
Clermont	WR4	78 - 18	A
Crystal River	WR4	87 - 27	
Clearwater	WR4AKU	40 - 00	
Daytona Beach	WR4ALG	235-835	C
Daytona Beach	WR4ADC	34 - 34	A
Daytona Beach	WR4AKH	75 - 15	A-M
Deland	WR4	93 - 33	M
Disney World	WR4AMG	90 - 30	
Ft. Lauderdale	WR4	04 - 64	
Ft. Lauderdale	WR4ADU	31 - 91	
Ft. Lauderdale	WR4AKA	99 - 39	E
Ft. Myers	WR4AES	19 - 79	A
Ft. Myers	WR4AMA	28 - 88	
Ft. Pierce	WR4AHW	13 - 73	A
Ft. Walton Bch	WR4ABZ	19 - 79	A
Gainesville	WR4ACE	22 - 82	A
Haines City	WR4	01 - 61	
Hallandale	WR4ACC	25 - 85	A
Hialeah	WR4	75 - 15	
Homestead	WR4AID	40 - 00	
Jacksonville	WR4AMI	04 - 64	
Jacksonville	WR4	07 - 67	
Jacksonville	WR4AAF	16 - 76	A*
Jacksonville	WR4AKP	25 - 85	
Jacksonville	WR4AHX	28 - 88	
Jacksonville	WR4AMU	31 - 91	
Jacksonville	WR4AFL	40 - 00	
Jacksonville	WR4	795-195	
Jacksonville	WR4	825-225	C
Jacksonville	WR4AMR	90 - 30	A
Juno Beach	WR4	84 - 24	C
Key West	WR4	13 - 73	
Lake City	WR4	75 - 15	
Lakeland	WR4	085-685	
Lake Wales	WR4AND	19 - 79	A
Leesburg	WR4	445-045	
Melbourne	WR4AMJ	25 - 85	
Melbourne	WR4AEE	705-105	
Merritt Island	WR4AFI	28 - 88	A
Merritt Island	WR4AFI	43 - 03	
Miami	WR4AHU	16 - 76	A
Miami	WR4	34 - 94	
Miami	WR4	46 - 06	
Miami	WR4	81 - 21	
Miami	WR4	84 - 24	C
Miami	WR4AHN	69 - 09	C
Miami	WR4AIY	90 - 30	S
Miami	WR4AMP	93 - 33	
Naples	WR4ANO	07 - 67	
New Port Richey	WR4AML	07 - 67	
Niceville	WR8AGG/4	28 - 88	
Ocala	WR4ALJ	01 - 61	
Orlando	WR4AGW	04 - 64	
Orlando	WR4AJS	10 - 70	
Orlando	WR4AKC	13 - 73	A
Orlando	WR4AFO	16 - 76	A
Orlando	WR4AJM	19 - 79	AM
Orlando	WR4AEL	22 - 82	
Orlando	WR4AJR	69 - 09	
Orlando	WR4AER	72 - 12	AMF
Orlando	WR4AEQ	78 - 18	A
Ormond Beach	WR4	99 - 39	R
Palm Beach	WR4AFM	28 - 88	*
Panama City	WR4ALU	10 - 70	A
Panama City	WR4	34 - 94	
Pensacola	WR4AFW	01 - 61	
Pensacola	WR4ACZ	16 - 76	A*
Pensacola	WR4AIW	25 - 85	A
Pensacola	WR4AIK	34 - 94	
Plantation	WR4AEP	19 - 79	A
Plant City	WR4ANM	-	
Pompano Beach	WR4AJZ	01 - 61	
St. Petersburg	WR4AKV	37 - 97	A
St. Petersburg	WR4ALN	34 - 94	Pe
St. Petersburg	WR4ALM	66 - 06	
St. Petersburg	WR4AGP	31 - 64	C
St. Petersburg	WR4AGO	135-7.700	C
St. Petersburg	WR4	78 - 18	
St. Petersburg	WR4	96 - 36	
Starke	WR4ALV	13 - 73	A
Stuart	WR4ANF	46 - 06	
Tallahassee	WR4AAB	16 - 76	A
Tampa	WR4AAH	16 - 76	A
Tampa	WR4AME	28 - 88	
Tampa	WR4	63 - 03	
Tampa	WR4ALT	75 - 15	A
Tampa	WR4AFJ	7.21-7.81	C
Titusville	WR4AKK	31 - 91	
West Palm Beach	WR4AKX	07 - 67	
West Palm Beach	WR4AIS	10 - 70	A
Winter Garden	WR4AJC	34 - 94	
Winter Haven	WR4	-	
Zephyrhills	WR4	99 - 39	

This listing courtesy of:
FLORIDA REPEATER COUNCIL
6563 Sapphire Drive
Jacksonville, Fla 32208

(A) Autopatch (C) CLOSED to non-members (E) Experimental
(F) Air-mobile Repeater (M) Mid-Florida Repeater System linked
(P) Proposed (Pe) Portable-emergency (R) RTTY (S) Spanish
(T) ATV (*) ARGUS 911 emergency autodial service

GEORGIA REPEATERS

January 1976

Albany	WR4ADM	146.10	146.70
	WR4ANB	146.22	146.82
Athens	WR4ABJ	146.13	146.73
Americus	WR4	146.34	146.94
Atlanta	WR4AFC	146.01	146.61
	WR4ABE	146.04	146.64
	WR4AED	146.16	146.76
	WR4AAE	146.22	146.82
	WR4AHS	146.34	146.94
	WR4AHC	146.37	146.97
	WR4	146.40	147.00
	WR4ABN	147.63	147.03
	WR4AFR	147.66	147.06
	WR4AFC	147.78	147.18
	WR4	147.81	147.21
	WR4AHS	147.90	147.30
	WR4AGV	147.96	147.36
	WR4ADB	444.5	449.5
	WR4	444.1	449.1
	WR4	444.3	449.3
	WR4	53.00	52.525
Augusta	WR4AGD	146.34	146.94
	WR4ALS	147.93	147.33
Columbus	WR4AIC	146.28	146.88
	WR4ANY	146.01	146.61
Cumming	WR4	147.75	147.15
Dallas	WR4AHM	146.25	146.85
Dublin	WR4	147.96	147.36
Eatonton	WR4ACX	146.10	146.70
Gainesville	WR4AEK	146.07	146.67
Griffin	WR4AEA	146.43	147.43
	WR4AIV	146.31	146.91
Kennesaw	WR4	146.28	146.88
	WR4	52.01	53.01
Lyons	WR4	146.37	146.97
Mableton	WR4ABD	146.13	146.73
	WR4ABD	223.34	224.94
Macon	WR4AHD	146.06	146.66
	WR4	147.87	147.27
Newnan	WR4AIH	146.19	146.79
Rome	WR4ADH	146.34	146.94
Savannah	WR4AKO	146.28	146.88
Swansboro	WR4	146.19	146.79
Valdosta	WR4AEW	146.16	146.76
Warner Robins	WR4AFD	146.25	146.85
Waycross	WR4AMK	146.10	146.70
Cumming	WR4	147.72	147.12

This listing of Georgia Repeaters is furnished by :

Douglas S. Barker, WA4HQL
Georgia Repeater Frequency Coordinator
P. O. Box 182/ 104 Miller Road
Eatonton, Ga. 31024

Phone (404) 485-6623

FLORIDA REPEATERS ON 52, 220, and 450 mHz.... tnx Florida Repeater Council

52 mhz

Clermont	WR4	01 - 01	
Disney World	WR4AMG	05 - 05	
Hollywood	WR4	03 - 03	C
Jacksonville	WR4AAF	276-2.64	
Jacksonville	WR4AAF	03 - 03	P
Largo	WR4ANA	55 - 55	
Miami	WR4ALK	2.48-2.68	
Miami	WR4	17 - 17	
Tampa	WR4ALT	63 - 63	
West Palm Beach	WR4AKX	07 - 07	

220 mhz

Disney World	WR4AMG	22 - 82	
Jacksonville	WR4AHX	34 - 94	P
Miami	WR4AKZ	34 - 94	
Orlando	WR4	34 - 94	P
St. Petersburg	WR4AKV	34 - 94	
Tampa	WR4AAH	34 - 94	

450 mhz

Boca Raton	WR4	439.25-431.75	T
		427.25-431.75	T
Bradenton	WR4ALX	449.30-444.30	A
Daytona Bch	WR4AKH	448.00-443.00	P
Disney World	WR4AMG	448.40-443.40	
Ft. Lauderdale	WR4	447.10-442.10	
Melbourne	WR4AEG	443.80-448.80	
Miami	WR4AMH	448.85-443.85	C
Miami	WR4	448.40-443.40	C
Orlando	WR4AKC	444.10-449.10	
Jacksonville	WR4AJP	444.50-449.50	
Riviera Bch	WR4	444.50-449.50	
Tampa	WR4ALT	444.50-449.50	
Tampa	WR4AME	443.10-448.10	
West Palm Bch	WR4AIT	444.75-449.75	C

ADDRESS CORRECTION REQUESTED

CAROLINAS - VIRGINIA REPEATER ASSN.
Post Office Box 3325
Burlington, North Carolina 27215

BULK RATE
U. S. POSTAGE
PAID
BURLINGTON, N. C. 27215
PERMIT NO. 271

BILL FINCH W4EHF
818 EMELINE AVE F
FAYETTEVILLE, NC 28303

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APPLICATION FOR ASSOCIATE MEMBERSHIP
CAROLINAS-VIRGINIA REPEATER ASSOCIATION

NAME: _____ CALL: _____ DATE: _____

ADDRESS: _____ PHONE: _____

CITY: _____ STATE: _____ ZIP: _____

MEMBER OF ARRL? _____ MY HOME REPEATER IS: _____

Mail to:

Enclosed is: _____ $ 2.00/one year Carolinas-Virginia Repeater Assn.
Lindsay Cleveland, W4IZI

_____ $ 4.00/two years P. O. Box 3325
Burlington, NC 27215

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